Repair

3A1176A

ENG

Interior Texture Sprayer TS650

For use with water based materials only. For professional use only.

Not approved to European explosive atmosphere requirements.

24F565

50 *psi (.35 MPa, 3.5 bar) Maximum Fluid Working Pressure*
100 *psi (.7 MPa, 7 bar) Maximum Air Input Pressure*

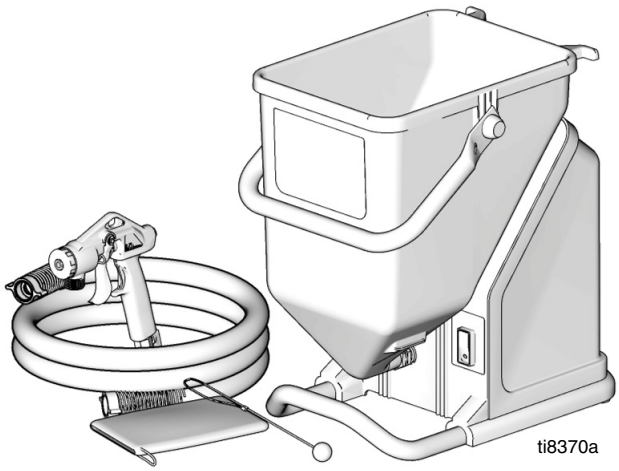
Important Safety Instructions

Read all warnings and instructions in this manual. Save these instructions.

Related Manuals

311969

3A1174



HO03

Intertek

Warnings

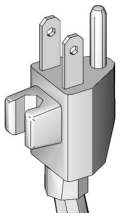
The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

⚠WARNING

GROUNDING

This product must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This product is equipped with a cord having a grounding wire with an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

- Improper installation of the grounding plug is able to result in a risk of electric shock.
- When repair or replacement of the cord or plug is required, do not connect the grounding wire to either flat blade terminal.
- The wire with insulation having an outer surface that is green with or without yellow stripes is the grounding wire.
- Check with a qualified electrician or serviceman when the grounding instructions are not completely understood, or when in doubt as to whether the product is properly grounded.
- Do not modify the plug provided; if it does not fit the outlet, have the proper outlet installed by a qualified electrician.
- This product is for use on a nominal 120V circuit and has a grounding plug similar to the plug illustrated in the figure below.



- Only connect the product to an outlet having the same configuration as the plug.
- Do not use an adapter with this product.

Extension Cords:

- Use only a 3-wire extension cord that has a 3-blade grounding plug and a 3-slot receptacle that accepts the plug on the product.
- Make sure your extension cord is not damaged. If an extension cord is necessary, use 12 AWG (2.5 mm^2) minimum to carry the current that the product draws.
- An undersized cord results in a drop in line voltage and loss of power and overheating.

⚠WARNING

FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent, in work area can ignite or explode. To help prevent fire and explosion:

- Use equipment in well ventilated area.
- Sprayer generates sparks. When flammable liquids are used near the sprayer or for flushing or cleaning, keep sprayer at least 20 feet (6 meters) away from explosive vapors.
- Keep work area free of debris, including solvent, rags and gasoline.
- Ground equipment in the work area. See **Grounding** instructions.
- If there is static sparking or you feel a shock, **stop operation immediately.** Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.

ELECTRIC SHOCK HAZARD

This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.

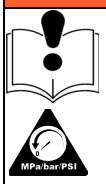
- Turn off and disconnect power cord before servicing equipment.
- Use only grounded electrical outlets.
- Use only 3-wire extension cords.
- Ensure ground prongs are intact on power and extension cords.
- Do not expose to rain. Store indoors.

PRESSURIZED EQUIPMENT HAZARD

Fluid from the gun/dispense valve, leaks, or ruptured components can splash in the eyes or on skin and cause serious injury.

- Follow the **Pressure Relief Procedure, page 7** when you stop spraying and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately.

⚠WARNING



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Always wear appropriate gloves, eye protection, and a respirator or mask when painting.
- Do not operate or spray near children. Keep children away from equipment at all times.
- Do not overreach or stand on an unstable support. Keep effective footing and balance at all times.
- Stay alert and watch what you are doing.
- Do not leave the unit energized or under pressure while unattended. When the unit is not in use, turn off the unit and follow the **Pressure Relief Procedure** for turning off the unit.
- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not kink or over-bend the hose.
- Do not expose the hose to temperatures or to pressures in excess of those specified by Airlessco.
- Do not use the hose as a strength member to pull or lift the equipment.

PLASTIC PARTS CLEANING SOLVENT HAZARD

Many solvents can degrade plastic parts and cause them to fail, which could cause serious injury or property damage.

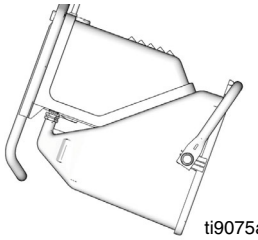
- Use only compatible water-based solvents to clean plastic structural or pressure-containing parts.
- See **Technical Data** in this and all other equipment instruction manuals. Read fluid and solvent manufacturer's MSDSs and recommendations.

PERSONAL PROTECTIVE EQUIPMENT

You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. This equipment includes but is not limited to:

- Protective eyewear, and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

NOTICE



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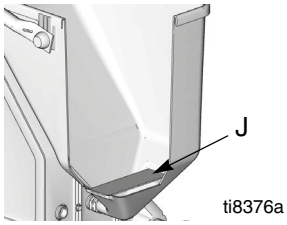
Water or material remaining in unit when temperatures are below freezing can damage motor and/or delay pump startup.

To insure water and material are completely drained out of unit:

1. Remove material line from sprayer.
2. Tip sprayer up as shown.

Before adding material or starting unit in cold weather, run warm water through pump.



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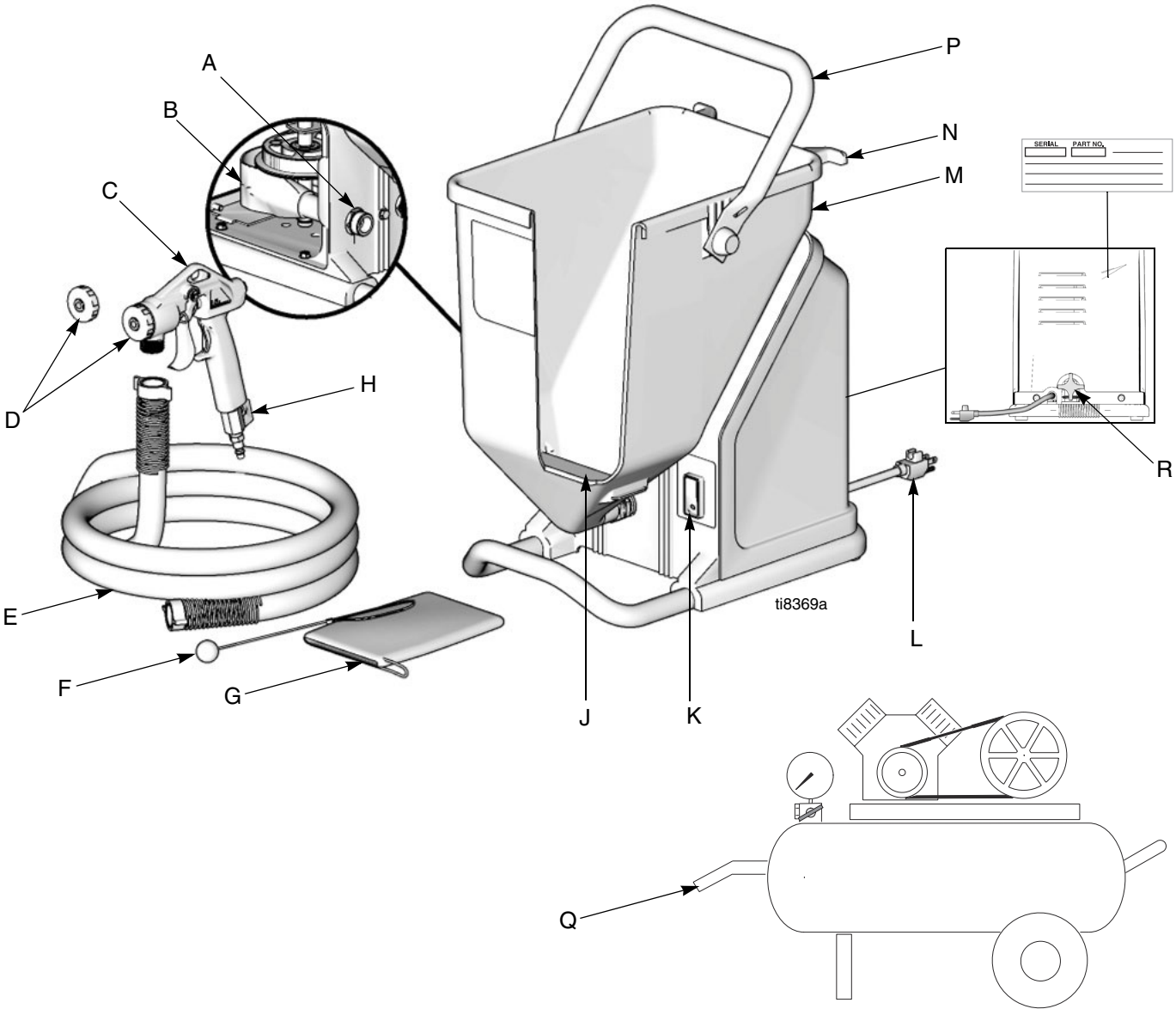
Before adding material to hopper, install burp guard (J). When only a small amount of material remains in the hopper, the burp guard prevents material from shooting out when the unit is turned off. This material could splash in the operator's eyes or on skin, or into the air.

Component Identification

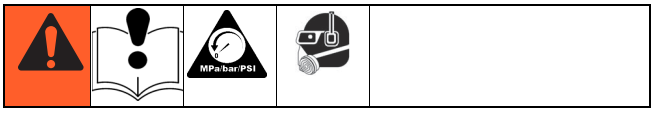


Item	Component	Item	Component
A	Pump Hose Outlet	J	Burp Guard
B	RotoFlex™ II Pump (inside)	K	ON/OFF Switch
C	Texture Spray Gun (Manual 311969)	L	Power Cord (120V, 15 ft)
D	Nozzle (2 included)	M	Material Hopper - 5 gallon
E	Material Hose (20 ft)	N	Cord Wrap
F	Material Thickness Gauge	P	Handle
G	Accessories Bag	Q	Air Compressor (Not Supplied)
H	Gun Air Valve	R	Knob/Pressure Control

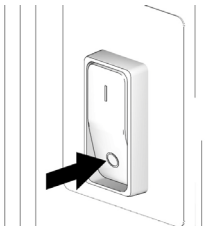
Pressure Relief Procedure

To reduce risk of injury, follow this procedure whenever you see this symbol throughout this manual, Also, perform this procedure whenever you:

- Stop spraying
- Check or repair any part of this system
- Install or clean spray nozzle



1. Turn Power Switch OFF.



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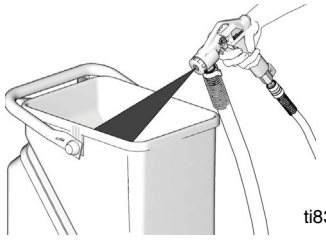
2. Trigger gun into material hopper.



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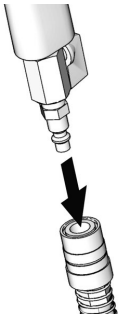
3. Disconnect air gun.



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Grounding and Electrical Requirements

This sprayer must be grounded. Grounding reduces the risk of electrical shock by providing an escape wire for the electrical current. The sprayer cord includes a grounding wire with an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Check with a qualified electrician or if grounding instructions are not completely understood, or if in doubt as to whether the product is properly grounded. Do not modify plug provided; if it will not fit the outlet, have proper outlet installed by a qualified electrician.

120V AC Systems

- This equipment requires a 120V AC, 60 Hz, 15A circuit with a grounding receptacle. Do not use an adapter with this product.

Extension Cords

- Use only an extension cord with an undamaged, 3-prong plug.
- For 25 to 50 ft (7.6 to 15.2 m) cords, use 3-wire, 14 AWG (1.5 mm^2) minimum.
- For up to 100 ft. (30.48 m) cord, use 3-wire, 12 AWG (2.5 mm^2) minimum.

Auxiliary Air Compressor (Required)

Minimum requirements 3.5 cfm @ 40 psi or 2.5 cfm @ 90 psi (see manual 3A1174 for detailed recommendations).

Generator Requirements (Alternate)

3500 W (3.5 KW) minimum.

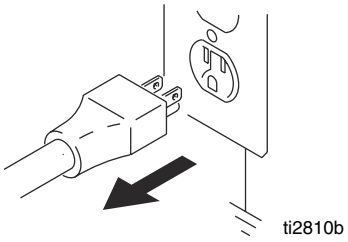
Hose Size and Length

The system comes with a hose set consisting of a 3/4 in. ID x 20 ft (25 mm x 7.6 m) material hose.

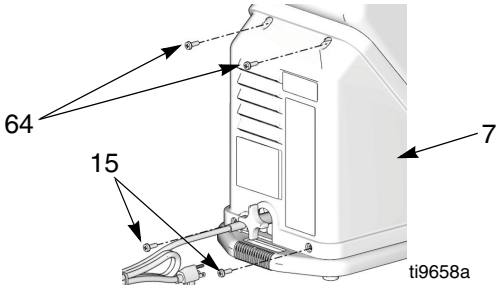
Shroud Removal

Disassembly

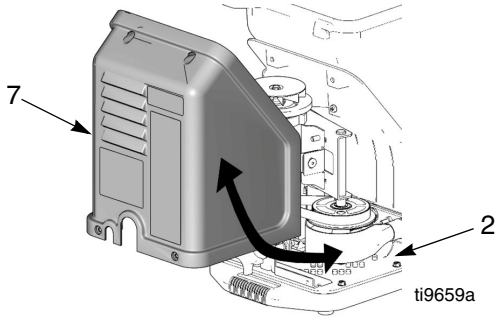
1. **Relieve Pressure, page 7**.
2. Unplug sprayer from outlet.



3. Remove two screws (15) and two screws (64) from back of shroud (7).



4. Pull shroud (7) back and up over knob (41).



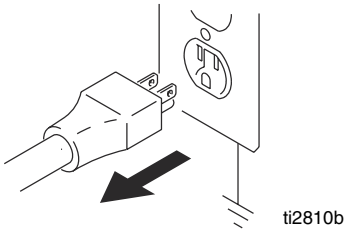
Reassembly

1. Slide shroud (7) onto base (2).
2. Tighten two bottom screws (15) and two top screws (64) into shroud (7).

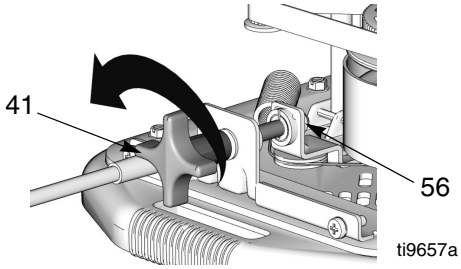
RotoFlex™ II Pump

Disassembly

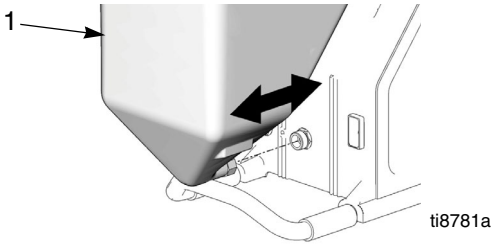
1. **Relieve Pressure, page 7**.
2. Unplug sprayer from outlet.



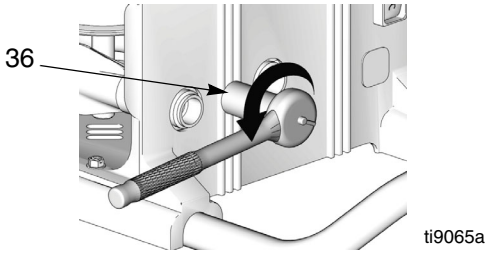
3. Remove **Shroud, page 8**.
4. Loosen two spacers (56) and knob (41).



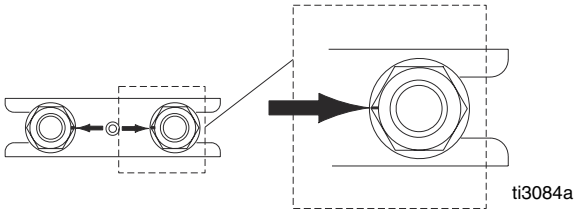
5. Loosen hopper fitting by hand to remove hopper (1).



6. Use 3/8 in. socket to remove screw (36) from hose bracket (27).

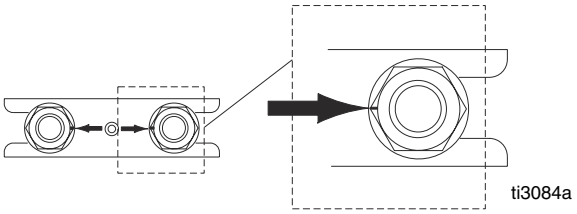


7. Slide hose fittings out of hose bracket (27) and remove hose (23) from base (2).



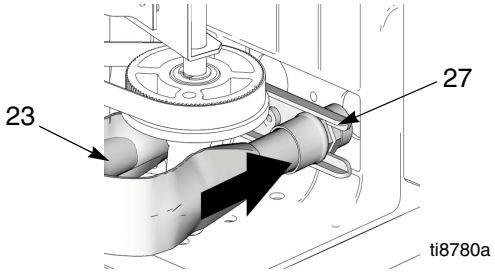
Reassembly

1. Bend hose (23) so colored dots on hose fittings face each other and slide hose fittings through hose bracket (27).



NOTE: Make sure protective fabric faces outside of hose. Roller will touch exposed area of pump hose when pump is in place.

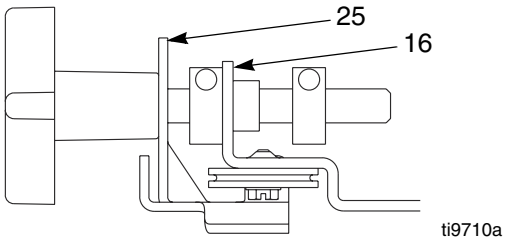
2. Squeeze hose ends together to keep hose (23) and bracket (27) together and feed pump hose fittings through holes on front of base.



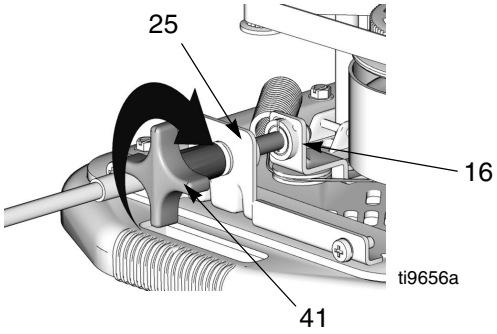
3. Use 3/8 in. socket to tighten screw (36) on hose bracket (27).

4. Install hopper and tighten hopper fitting on hopper (1) by hand until snug.

5. To set pressure, apply petroleum jelly to threads (41), tighten knob (41) until back of bracket (25) is approximately 1/2 in. from front of tensioning bracket (16).

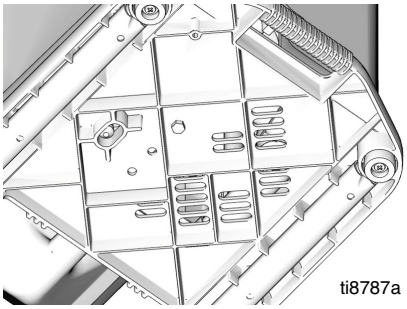


Tighten front spacer (56) until flush to front of tensioning bracket (16). Tighten back spacer (56) 3/8 in. from tensioning bracket.



NOTE: To break in new pump, run sprayer dry for no longer than two minutes.

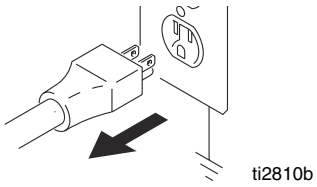
NOTE: Replace hose when mud seeps through slots in the base and leaves material on the floor.



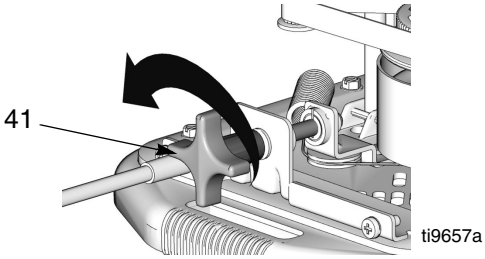
Motor

Disassembly

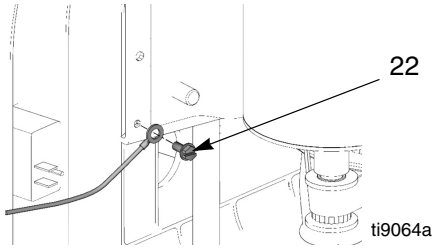
1. **Relieve Pressure, page 7**.
2. Unplug sprayer from outlet.



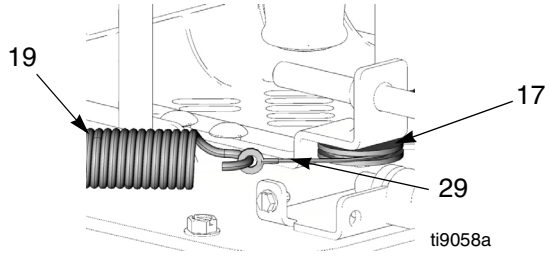
3. Remove **Shroud, page 8**.
4. Loosen knob (41) until spring relaxes.



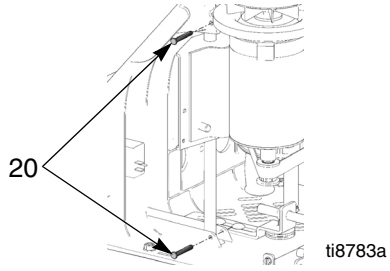
5. Remove **Pump, page 9**.
6. Disconnect all electrical **Wiring, page 17**.
7. Use 1/4 in. socket to remove grounding screw (22).



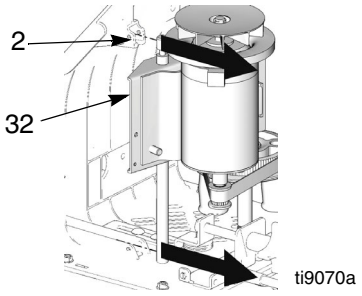
8. Disconnect extension cable (29) from pulley (17) and spring (19) to allow motor tray to pivot.



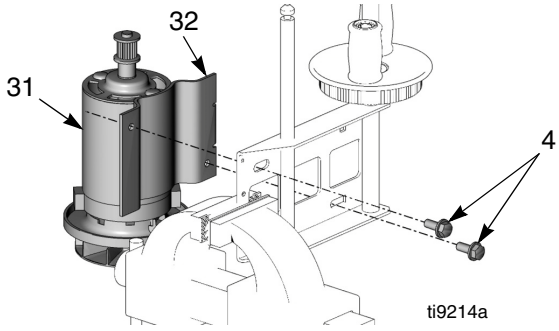
9. Remove two clevis pins (20) from base.



10. Slide motor tray (32) out of slots in base (2) to remove motor and tray from sprayer.



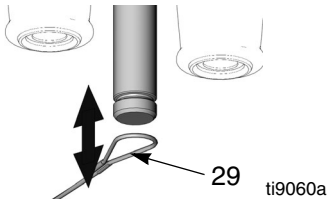
11. Remove **Belt, page 14**.
12. Loosen bolts (4) and remove motor (31) from motor tray (32).



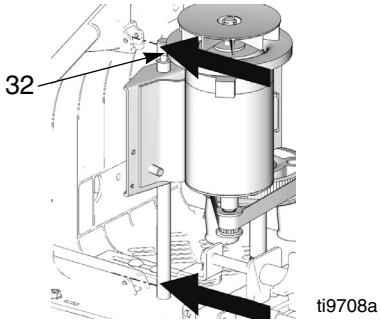
Reassembly

1. Tighten **Belt, page 14**.

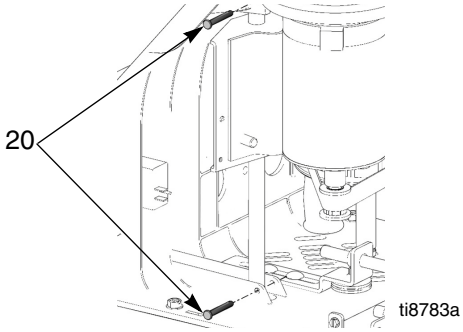
2. Use petroleum jelly to grease area of shaft that makes contact with extension cable (29).



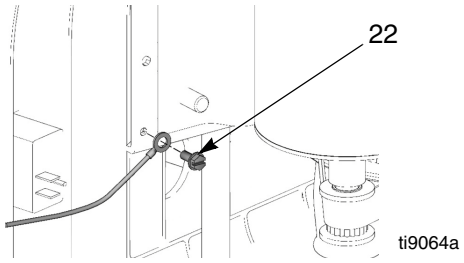
3. Slide pin on motor tray (32) into slots on base and push motor and tray back into position.



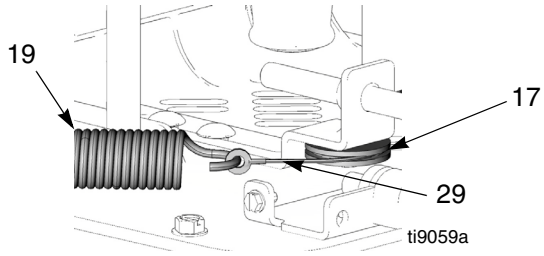
4. Replace two clevis pins (20) in base (2).



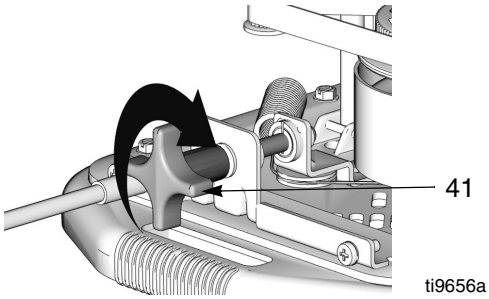
5. Reconnect all electrical wiring including ground wire (22), **Wiring, page 17**.



6. Pull back on motor tray (32) to create slack in extension cable (29). Loop extension cable (29) through pulley (17) and connect to extension spring (19). Apply petroleum jelly to pulley (17) and threads on knob (41).

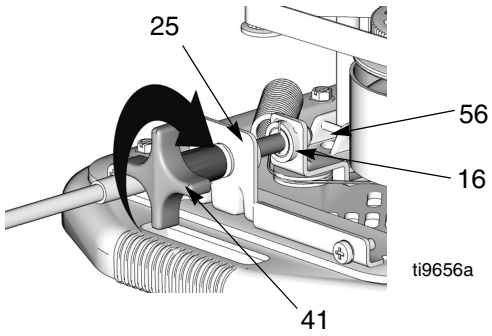


7. Tighten knob (41).



8. To set pressure, tighten knob (41) until back of bracket (25) is approximately 1/2 in. from front of tensioning bracket.

   Tighten front spacer (56) until flush to front of tensioning bracket (16). Tighten back spacer (56) 3/8 in. from tensioning bracket (16).

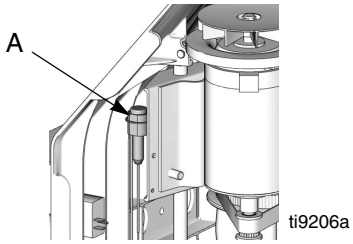


9. Reassemble **Shroud, page 8**.

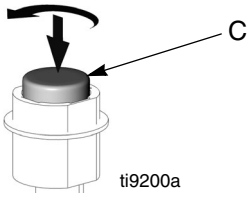
Motor Fuse Removal

When replacing fuse, use only Bussman GMF-3 (3A) to prevent premature trips or equipment damage.

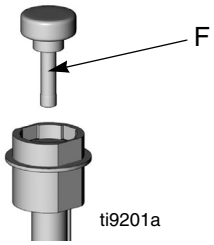
The motor has a replaceable fuse attached to the motor bracket. The fuse assembly (A) is fastened to the motor bracket along with a clamp.



To remove the motor fuse, press down on the round center cover (C) and turn it counterclockwise.



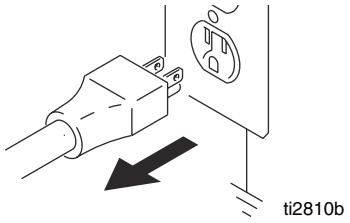
The cover will pop up to allow the fuse (F) to be inspected and replaced if needed.



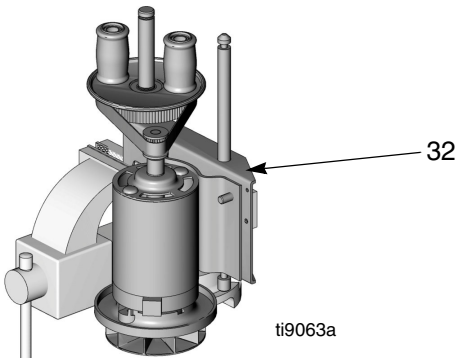
Belt

Disassembly

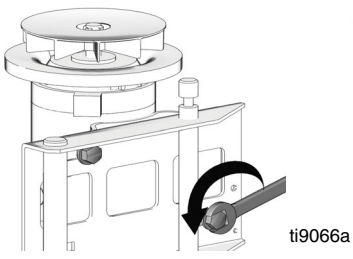
1. **Relieve Pressure, page 7**.
2. Unplug sprayer from outlet.

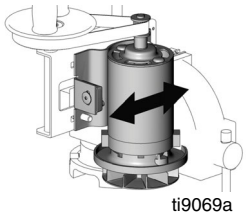


3. Remove **Shroud, page 8**.
4. Remove **Motor, page 11**.
5. Place motor tray (32) into vice and tighten until snug.



6. Use 9/16 in. wrench to loosen two mounting screws (4) on motor tray (32) to allow motor to slide around.

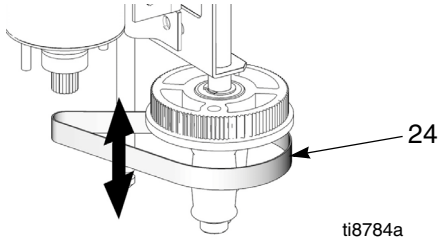




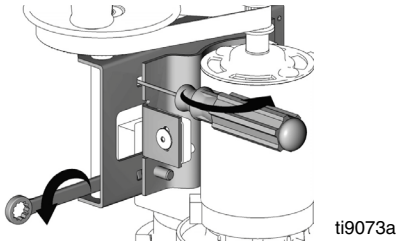
7. Remove old belt and discard.

Reassembly

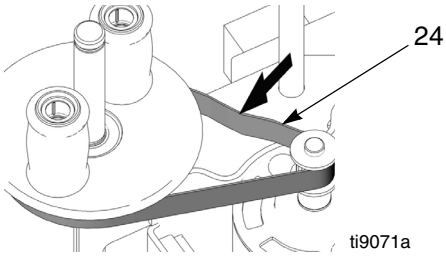
1. Loop one end of belt over extension cable (29) and pulley (17), then loop other end of belt over motor shaft (make sure teeth of belt (24) and pulley are aligned).



2. Insert flat screwdriver into slot on back of motor tray (32) and use screwdriver as a lever to pull motor (31) into position.
3. Use 9/16 in. wrench to tighten two mounting screws (4) while keeping motor (31) in position with screwdriver.



NOTE: Once the motor is in place, you can test the belt to make sure it is properly tightened. When you push on the belt (24) with one finger it should move no more than 1/4 in. If it moves more than 1/4 in., go back to step 8 and re-tighten the belt.



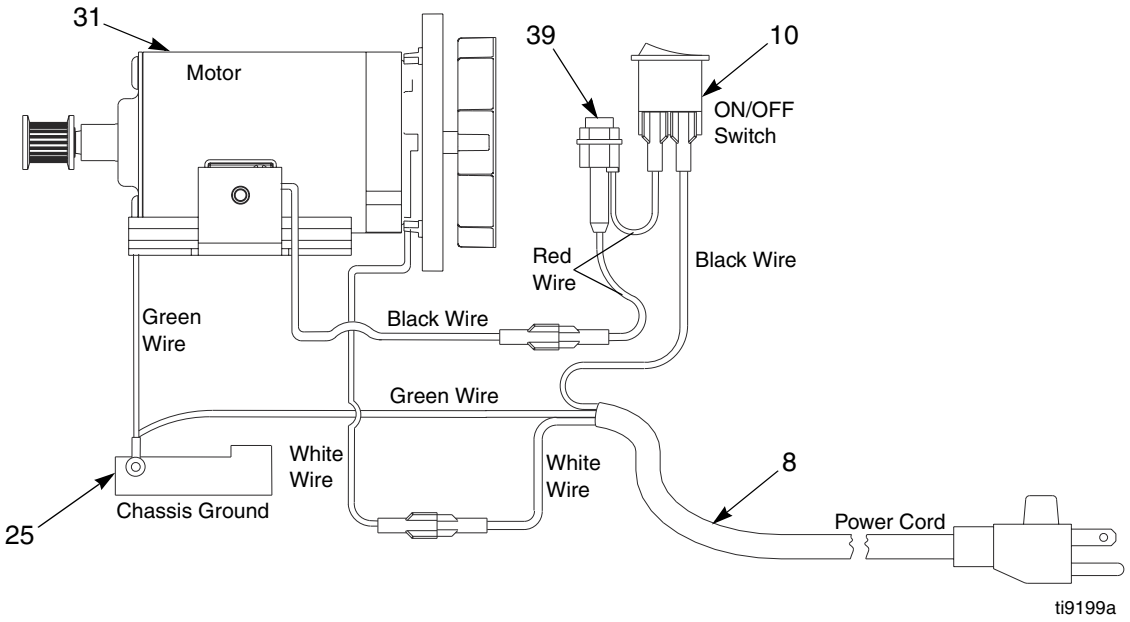
4. Reassemble **Motor, page 11**.
5. Reassemble **Shroud, page 8**.

Troubleshooting

Problem	Cause	Solution
Sprayer won't run	Power switch not on	Turn switch on.
	No power at wall outlet	Check outlet by seeing if light in the plug is illuminated. If not, try another outlet.
	Wrong size generator	Use a 3500 watt or larger generator. Refer to **Generator Requirements, page 7**.
	Too many items on same circuit	Unplug other items from circuit
	Extension cord too long or wrong gauge	Use a different extension cord. Refer to **Grounding and Electric Requirements, page 7**.
	Breaker tripped	Reset breaker.
	Blown motor fuse	Check to see if fuse needs to be replaced. Refer to **Motor Fuse Removal, page 13**.
Pump won't pump material	Failed motor or motor shield	Replace motor or motor fuse.
	Mix too thick	Add water to thin material. Use Material Thickness Gauge.
	Plugged gun	**Relieve Pressure, page 7**. Remove gun from hose. Clean gun.
	RotoFlex II pump worn out	Replace hose. Recommended hose replacement - once a year or every 3000 gallons.
	Pump cold or material frozen in pump	Move pump to warm room and allow it to warm up or run hot water through sprayer.
	Material in hose	Remove material hose from outlet and run until material flows.
Material runs out of bottom of sprayer onto floor	RotoFlex II pump worn out	Replace hose.
No air flowing from gun	Gun air valve closed	Open gun air valve.
	Gun needle plugged	Clean needle and retry.
	Lines not connected	Check all connections to gun and hoses.
	Damaged hose	Replace hose.
	Worn compressor	Replace compressor.

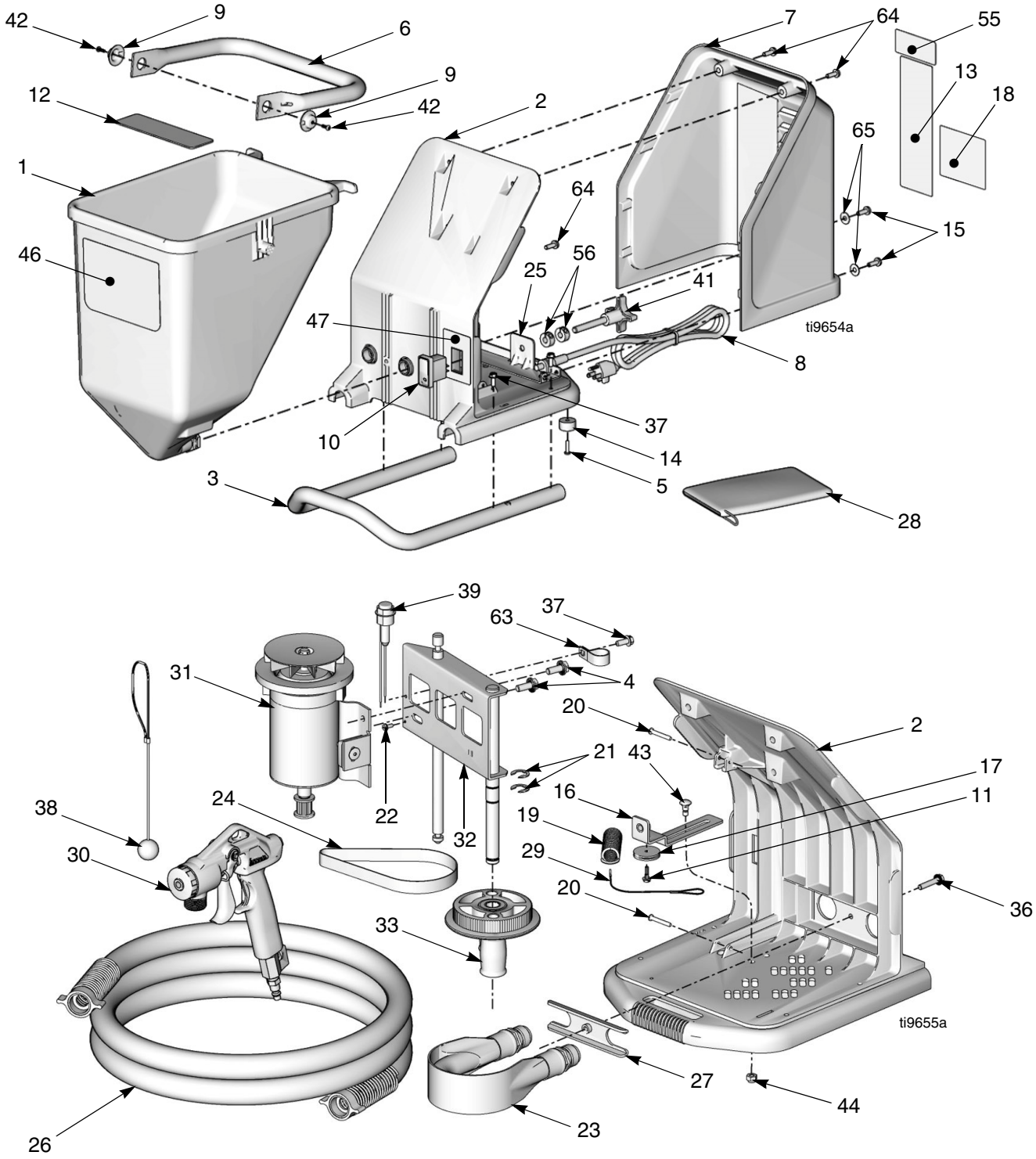
Problem	Cause	Solution
Speed of application too slow	New pump hose not broken in properly	Run pump dry for no longer than 2 minutes.
	Material too thick	Thin material.
	Nozzle too small	Change nozzles to a larger size. See **Operation Manual, Recommended Nozzle Selection Chart**.
	Plugged or dirty gun	**Relieve Pressure, page 7**. Clean gun.
	Kinked hose	Unkink hose.
	Gun fluid flow adjustment set too low	Increase flow adjustment with flow adjustment nut.
Intermittent flow/sputtering	Hopper connection not tight	Check gasket. Tighten connection.
	Debris in system	Clean system.
Gun will not shut off	Worn nozzle or needle.	**Relieve Pressure, page 7**. Replace worn parts.
	Debris in needle passage	**Relieve Pressure, page 7**. Clean.
Fluid leaking at Flow Adjustment Nut on gun	Damaged seal.	**Relieve Pressure, page 7**. Replace seal.
Fluid leaking out of either plug on gun	Missing or damaged o-rings	**Relieve Pressure, page 7**. Replace o-rings.
	Gun damaged	Replace gun.
Needle adjustment on gun won't adjust	Dirty threads	Clean threads.
	Nozzle not on gun	Put nozzle on gun.

Wiring Diagram



Parts

Models 24F565



Ref.	Part	Description	Qty.
1	15J187	HOPPER, 5 gallon	1
2	15J181	BASE	1
3	15J185	FRAME, tubular, painted, black	1
4	117791	SCREW, cap, tri lobe	2
5	120783	SCREW, mach, pnh	3
6	15J186	HANDLE, tubular, painted, black	1
7	288685	COVER, adjustable	1
8	15J505	CORD, power	1
9	120817	FASTENER, push-on hat w/hole	2
10	117693	SWITCH, power	1
11	120700	SCREW, shoulder	1
12	15J222	GUARD, burp	1
13▲†	15K512	LABEL, warning	1
14	15J388	DAMPENER, feet	2
15	120648	SCREW	2
16	15K154	LEVER, spring, tensioning	1
17	15J459	PULLEY	1
18▲	15H868	LABEL, instruction	1
19	120657	SPRING, extension	1
20	15J510	PIN, detent clevis	2
21	101242	RING, retaining, ext.	2
22	115498	SCREW, mach, slot hex wash hd	2
23	288623	HOSE, pump (Roto-Flex™)	1
24	288718	BELT, timing	1
25	15K155	BRACKET, cover/cord	1
26	288622	HOSE, coupled, 20 feet	1
27	15J500	BRACKET, hose	1
28	15J506	BAG, accessories	1
29	120658	CABLE, extension	1
30	255171	GUN, spray	1
31	288740	MOTOR (includes item 39)	1
32	288229	TRAY, motor, weld	1
33	288225	PULLEY, w/rollers	1
36	120444	SCREW, hex hd, flanged	1
37	117633	SCREW, slot hex wash hd	5
38	15C090	GAUGE, thickness, fluid	1
39	288739	FUSE, Bussman GMF-3 (3A)	1
41	15K143	KNOB	1
42	114538	SCREW, mach, torx, pan hd	2
43	120757	SCREW, carriage, shoulder	1
44	102040	NUT, lock, hex	1
45	103473	STRAP, tie, wire	2
46▲	16F594	LABEL, front	1
47▲	15K339	LABEL, control	1
55▲	15E298	LABEL, ident	2
56	120770	SHAFT, collar	2
63	120830	CLAMP, loop	1
64	120771	SCREW	3
65	100527	WASHER	2
66▲	181250	LABEL, designation	1

▲ *Labels are not included with components. They must be ordered separately.*

† *Additional warning labels are available at no cost.*

Technical Data

Main Unit Power Requirements	120 Vac, 60 Hz, 15A, 1 phase
Maximum Fluid Working Pressure	50 psi (.35 MPa, 3.5 bar)
Maximum Air Working Pressure	100 psi (.7MPa, 7 bar)
Compressor Specifications	Universal motor thermally protected, oil-less
Compressor (Not Supplied)	3.5 @ 40 psi minimum
Generator (Optional)	3500 W minimum
Electric Motor	Permanent Magnet DC-5A
Power Cord	16 AWG, 3-wire, 15 ft
Material Hopper Capacity	5 gallons
Maximum Delivery with Texture	0.65 gpm
TS650 Dimensions and Weight	
Length	19 in. (482 mm) with handle
Width	12 in. (305 mm)
Height (no handle)	20 in. (508 mm)
Weight (includes hoses or gun)	33 lb (14.9 kg)
Wetted Parts	brass, aluminum, plastic
Sound Data (less compressor)	
Sound Pressure Level	N/A
Sound Power Level	N/A
Storage Temperature Range	35°F - 160°F (1.6°C - 71°C)
Operating Temperature Range	40°F - 115°F (4°C - 46°C)
Gun:	
Maximum Fluid Working Pressure	70 psi (.5 MPa, 5 bar)
Maximum Air Working Pressure	125 psi (.86 MPa, 8.6 bar)
CFM Rating	3.0 - 11 CFM
Weight	1.1 lb (500 g)

Notes

Airlessco Standard Warranty

Airlessco warrants all equipment referenced in this document which is manufactured by Airlessco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Airlessco, Airlessco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Airlessco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Airlessco's written recommendations.

This warranty does not cover, and Airlessco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Airlessco component parts. Nor shall Airlessco be liable for malfunction, damage or wear caused by the incompatibility of Airlessco equipment with structures, accessories, equipment or materials not supplied by Airlessco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Airlessco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Airlessco distributor for verification of the claimed defect. If the claimed defect is verified, Airlessco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Airlessco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

AIRLESSCO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY Airlessco. These items sold, but not manufactured by Airlessco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Airlessco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Airlessco be liable for indirect, incidental, special or consequential damages resulting from Airlessco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Airlessco, or otherwise.

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Original Instructions. This manual contains English. *MM 3A1176*
Airlessco, 3501 N. 4th Avenue, Sioux Falls, SD 57104

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